

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTONA NEW SPECIES OF AEDES FROM THE
CAROLINE ISLANDS.(Diptera, Culicidae)¹D. S. FARNER, LIEUTENANT (JG), H(S), USNR.²

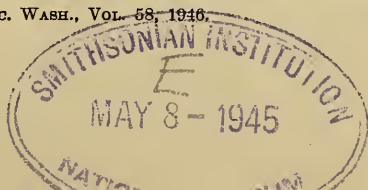
A collection of mosquitoes from the Ulithi Islands, western Caroline Islands, contains, in addition to a large number of specimens of *Culex jepsoni* Theobald, a number of specimens of a previously undescribed species of *Aedes* belonging to the *scutellaris* group of the subgenus *Stegomyia*.

Aedes (*Stegomyia*) *hensilli*, new species

Male.—Length about 3 mm., wing about 2 mm. Vertex covered with broad appressed scales with median broad stripe and with two lateral white stripes. Torus with white scales around entire circumference forming a conspicuous broad inner patch. Clypeus bare. Proboscis dark; palpus about length of proboscis, segments with basal white patches, those on apical segments reduced. Anterior pronotal lobe with many white broad appressed scales; posterior pronotum with dark narrow curved scales and a patch of white broad scales opposite anterior pronotal lobe. Scutum with median white stripe narrowing posteriorly and forked in the prescutellar area with an indistinct short posterior submedian line and a shorter marginal line of white scales over the wing base. Scutellum with white broad appressed scales on all three lobes, a few dark scales on apex of mid lobe. Pleuron with white scales arranged more or less in two parallel lines and scattered spots. Coxae with patches of white scales; inner surfaces of femora with broad pale longitudinal stripe interrupted subapically on hind leg; each femur with a white knee spot; tibiae with dark scales, occasionally with a few apical pale scales. Front and mid tarsus dark usually with small basal patches of white scales on segments I and II; hind tarsal segments with basal pale bands interrupted on inner side of segment I and usually narrower on inner side of the other segments; width of basal white band on outer side of

¹ The author wishes to thank Dr. Alan Stone, Division of Insect Identification, U. S. Department of Agriculture, for his helpful suggestions and assistance.

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segment I $1/5$ to $1/4$ length of segment, always completely interrupted on inner side; width of basal white band on outer side of II $1/5$ to $1/4$ length of segment, width on inner side $1/10$ (or a few pale scales) to $1/4$ length of segment; width of basal white band on outer side of III $1/5$ to $1/3$ length of segment, width on inner side $1/10$ (or a few pale scales) to $1/3$ length of segment; width of white basal band on outer side of IV $1/3$ to $1/2$ length of segment, width on inner side $1/5$ to $1/3$ length of segment; width of basal white band on outer side of segment V about $1/2$ length of segment, width on inner side $1/10$ to $1/2$ length of segment, occasionally completely interrupted by dark scales. Wing with dark scales. Abdominal tergite II with lateral subbasal white spots; abdominal tergites III to VII with subbasal white bands, that on VII sometimes interrupted; abdominal tergite VIII usually with large spot of pale scales. Sternites II to VI with broad subapical bands broadening ventrally and basally; sternite VII dark. Genitalia with basal lobe of basistyle simple and folded similar to *guamensis* Farner and R. Bohart (figures 5 and 6, p. 122, Proc. Biol. Soc. Washington, vol. 57, 1944, or figures 10 and 11, p. 40, U. S. Nav. Med. Bull., vol. 44, 1945) but apparently with thickened bristles extending more basad; dististyle long, curved and somewhat swollen subapically.

Female.—Markings about as in male. Palpus about $1/5$ length of proboscis, apical segment mostly white.

Fourth Instar Larva.—Length about 6 mm. Head slightly broader than long; antenna slender, scarcely tapering, length about one-third width of head; no spicules; a single antennal hair slightly beyond middle of antenna. Clypeal spines very slender, curved downward; anteantennal hair (A) double; lower head hair (B) and upper head hair (C) usually single, occasionally bifid, both anterior to hair A; hair C well behind hair B; postclypeal hair (d) a tuft of 10 to 11 hairs arising at the same level from a common stem; sutural hair (e) and transsutural hair (f) both very fine, single. Thorax: Prothoracic submedian hairs 2 tufts of 3 hairs each, one directly anterior to and smaller than the other; mesothoracic and metathoracic pleural hair tufts each with a very short basal spine. Abdomen: Lateral tuft of first segment of 4–5 hairs; of second, 2–3; of segments 3–5 double; of 6 single; of 7 double. Comb scales of eighth segment 8–14, each with a single sharp apical spine and a basal lateral fringe of fine hairs on each side; eighth segment with 2 siphonal tufts, one of 3–4 hairs, one single; 2 subsiphonal tufts, one single, one with 4–7 hairs; one anal tuft of 3–5 hairs. Siphonal index 2.0–2.6; pecten of variable number (10–16, usually about 14) of evenly spaced teeth with 1–3 lateral spines, occasionally a tooth with two equal spines; a tuft of 2–4 hairs about middle, beyond last tooth of pecten. Dorsal saddle reaching nearly to midline but never fusing ventrally; saddle hair double; dorsal hairs long, one single, one double; gills 4, stout, usually more than twice the length of the anal saddle; ventral brush of about 8 bars with relatively few hairs.

Holotype.—Male, Ulithi Islands, western Caroline Islands, December

1944; George S. Hensill, collector. Paratypes: 5 females, 10 males, same collecting locality, date, and collector.

Type material deposited in U. S. National Museum (Cat. No. 57278).

In addition to the type material, 40 adults and 12 larvae from Ulithi, also collected by George S. Hensill, have been studied.

This species in many respects is intermediate between *marshallensis* Stone and R. Bohart and *guamensis* Farner and R. Bohart although probably much closer to the latter. The basal lobe of the basistyle of *hensilli* is simple and very similar to that of *guamensis* although in the former there appears to be a tendency for the thickened bristles to extend more basad than those of *guamensis*. The basal white bands of the hind tarsi are reduced as in *marshallensis* and, as in this species, the apical half of the fifth tarsal segment is always dark. The tarsal bands approach the interrupted condition of those of *guamensis* in that they are usually narrower on the inside of the leg than on the outside. Occasionally the light bands of segments II-V are interrupted by dark scales on the inside but never as distinctly or completely as in *guamensis*. Abdominal tergites III-VII of *hensilli* have subbasal bands of pale scales although the band on VII is sometimes interrupted; abdominal tergites II-VII in *guamensis* have only basal lateral patches. Although *hensilli* and *marshallensis* can be differentiated sometimes by their tarsal bands, in general these characters are often too variable. However, the highly modified basal lobe of *marshallensis* as compared to the simple corresponding structure in *hensilli* is immediately distinctive. Until a careful study of all the larvae of the *scutellaris* group is made, it will remain difficult to point out distinguishing characteristics of the larvae of individual species. The larva of *hensilli* apparently differs from that of *marshallensis* in having comb scales of the eighth segment with simple teeth and in having a larger number of teeth (8-14 as compared to 7-8) in the pecten. The larva of *hensilli* apparently differs from *guamensis* in having more poorly developed lateral fringes on the teeth of the pecten, and in having fewer branches in the tuft beyond the pecten (2-4 as compared to 5 or 6 in *guamensis*). Furthermore the gills of *hensilli* are usually distinctly longer than those of *guamensis*.

The exact systematic status of *hensilli* cannot be ascertained until materials from other localities in the Caroline Islands are available for examination. Because of the close similarity of the basal lobe of *hensilli* to that of *guamensis*, it is possible that the former is a subspecies of *guamensis*. However, until more material is available and also in view of the differences in tarsal and abdominal banding, it seems best to regard *hensilli* as specifically distinct from *guamensis*.

The notes transmitted by Dr. Hensill indicate that the larvae of *hensilli* were found in empty coconut shells, tree holes, and to some extent in artificial containers such as tin cans as well as discarded drums, barrels, and bottles used by natives. Larvae were not found in leaf axils of pandanus trees or in taro plants. It was also noted that the adults were active primarily at dusk.

